

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
WESTERN DIVISION**

**NOKIA TECHNOLOGIES OY,
Plaintiff,**

v.

**LENOVO (SHANGHAI) ELECTRONICS
TECHNOLOGY CO. LTD., LENOVO GROUP,
LTD., LENOVO BEIJING, LTD., LENOVO PC
HK LIMITED, AND LENOVO (UNITED
STATES), INC.,**

Defendants.

CIVIL ACTION NO.

5:19-cv-00427-BO

JURY TRIAL DEMANDED

**DEFENDANT LENOVO (UNITED STATES) INC.'S ANSWER, DEFENSES, AND
COUNTERCLAIMS TO THE FIRST AMENDED COMPLAINT OF
NOKIA TECHNOLOGIES OY**

Defendant Lenovo (United States) Inc. (hereinafter, "Lenovo United States"), by and through its attorneys, hereby submits this Answer and Defenses to the First Amended Complaint filed by Plaintiff Defendant Nokia Technologies Oy (hereinafter, "Nokia"). The paragraph numbers in this Answer correspond to the paragraph numbers in the First Amended Complaint. All allegations of the First Amended Complaint not expressly admitted in this Answer are denied.

NATURE OF THE ACTION¹

1. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 1, and therefore denies them.

¹ For convenience and clarity, Lenovo United States uses the same headings as set forth in the First Amended Complaint. In doing so, Lenovo United States does not admit any of the allegations contained in Nokia's headings.

2. Lenovo United States admits that the H.264 Standard is promulgated by the International Telecommunications Union. Lenovo United States denies that the Patents-in-Suit are essential for compliance with the H.264 Standard. Lenovo United States further denies that it has infringed the Patents-in-Suit. Lenovo United States further denies that it has benefited from Nokia's "innovations." Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 2, and therefore denies them.

3. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 3, and therefore denies them.

4. Lenovo United States denies that the Patents-in-Suit are essential for compliance with the H.264 Standard. Lenovo United States further denies that it "refused to meaningfully engage" or "refus[ed] to negotiate ... in good faith" with Nokia or that it "forced Nokia to institute this lawsuit." Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 4, and therefore denies them.

PARTIES

5. Lenovo United States lacks knowledge or information sufficient to form a belief as to the allegations in Paragraph 5, and therefore denies them.

6. Lenovo United States admits that Lenovo Group Limited is a company organized under the laws of the People's Republic of China, with its principal place of business at Lincoln House, 23rd Floor, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong, China. Lenovo United States denies any remaining allegations in Paragraph 6.

7. Lenovo United States admits Lenovo (Shanghai) Electronics Technology Co., Ltd. is a company organized under the laws of the People's Republic of China, with its principal place of business at Wai Gao Qiao Free Trade Zone, 199 Fenju Road, No. 68 Building, Shanghai, China 200131. Lenovo (Shanghai) Electronics Technology Co., Ltd. is an indirect

subsidiary of Lenovo Group Limited. Lenovo United States denies any remaining allegations in Paragraph 7.

8. Lenovo United States admits that Lenovo (Beijing) Limited is a company organized under the laws of the People's Republic of China, with its principal place of business at No. 6 Chuang Ye Road, Shangdi Information Industry Base, Haidan District, Beijing, China. Lenovo United States admits that Lenovo (Beijing) Limited is a subsidiary of Lenovo Group Limited. Lenovo United States denies any remaining allegations in Paragraph 8.

9. Lenovo United States admits the allegations in Paragraph 9 except that Lenovo PC HK Limited is organized under the laws of Hong Kong and is an indirect subsidiary of Lenovo Group Limited.

10. Lenovo United States admits that it is organized under the laws of Delaware and that it is an indirect subsidiary of Lenovo Group Limited. Lenovo United States denies the remaining allegations of Paragraph 10. The principal place of business of Lenovo United States is 8001 Development Drive, Morrisville, North Carolina 27560.

11. Lenovo United States admits that Lenovo United States markets, sells, offers for sale, and imports tablets and computers in the United States. Lenovo United States admits that Lenovo devices are sold throughout the United States, including in North Carolina. Lenovo United States denies the remaining allegations in Paragraph 11.

JURISDICTION AND VENUE

12. Lenovo United States admits that Nokia has alleged patent infringement in this case. The remaining allegations in Paragraph 12 state conclusions of law to which no response is required. To the extent that a response may be required, Lenovo United States admits that Nokia purports to bring this action under the laws of the United States of America; Lenovo United States denies the remaining allegations in Paragraph 12.

13. The allegations in Paragraph 13 state conclusions of law to which no response is required. To the extent that a response may be required, Lenovo United States admits that Nokia purports to bring this action under the laws of the United States of America; Lenovo United States denies the remaining allegations in Paragraph 13.

14. Lenovo United States admits that it has registered with the North Carolina Secretary of State's Office to do business in the State of North Carolina. Lenovo United States admits that Lenovo markets, sells, offers for sale, and imports tablets and computers in the United States. Lenovo United States admits that Lenovo devices are sold throughout the United States, including in North Carolina. The remaining allegations in Paragraph 14 state conclusions of law to which no response is required. To the extent that a response may be required, Lenovo United States denies the remaining allegations in Paragraph 14.

15. Lenovo United States admits that it is an indirect subsidiary of Lenovo Group Limited. Lenovo United States further admits that Lenovo (Shanghai) Electronics Technology Co., Ltd. is an indirect subsidiary of Lenovo Group Limited. Lenovo United States further admits that Lenovo (Beijing) Limited is a subsidiary of Lenovo Group Limited. Lenovo United States further admits that Lenovo PC HK Limited is an indirect subsidiary of Lenovo Group Limited. Lenovo United States admits that Lenovo (Beijing) Limited is a subsidiary of Lenovo Group Limited. Lenovo United States denies the remaining allegations in Paragraph 15.

16. Lenovo United States admits that Lenovo Group Limited is the ultimate parent company of Lenovo United States, and that Mr. Yang Yuanqing is the Chief Executive Officer of Lenovo Group Limited. Lenovo United States further admits that the Lenovo Group Limited's 2018/19 Annual Report contains the statements that Mr. Yuanqing "formulates and recommends the strategy of the Group," that the Board "executes the strategy agreed by the

Board,” and that “The Group is controlled through the Board who is responsible for steering the success of the Group by overseeing the overall strategy and directing and supervising its affairs in a responsible and effective manner.” Lenovo United States denies the remaining allegations in Paragraph 16.

17. Lenovo United States admits that it distributes products for sale throughout the United States, including in this District. Lenovo United States admits that the Lenovo Group Limited’s 2018/19 Annual Report indicates that Lenovo Group Limited contributes to Lenovo United States’s employees’ retirement plans, and that a “third quarter Board meeting [occurred] in Raleigh, Lenovo key operating center in US.” Lenovo United States admits that Matthew Zielinski was quoted in a 2019 *China Daily* interview as stating, “We’re very proud of our continued momentum among US consumers.” Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations regarding alleged meetings and discussions, which Nokia has failed to identify with specificity, and Lenovo United States therefore denies those allegations. Lenovo United States denies any remaining factual allegations in Paragraph 17. Paragraph 17 also states conclusions of law to which no response is required; to the extent that a response may be required, Lenovo United States denies the allegations.

18. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 18 because they are vague and ambiguous, and therefore denies them.

19. Lenovo United States admits that Lenovo products with UL and FCC certification are sold in the United States, including North Carolina and this District. Lenovo United States

lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 19.

20. Lenovo United States admits that Lenovo (Beijing) Limited is the registered owner of the Lenovo.com website, where Lenovo products are offered for sale and sold. Lenovo United States denies the remaining allegations in Paragraph 20.

21. Lenovo United States admits that Lenovo PC HK Limited is a manufacturer of the Lenovo Smart Tab M10. Lenovo United States admits that Lenovo products with FCC certification are sold in the United States, including in North Carolina and this District. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 21, because they are vague and ambiguous, and therefore denies them.

22. The allegations in Paragraph 22 state conclusions of law to which no response is required. To the extent that a response may be required, Lenovo United States denies the allegations in Paragraph 22.

23. Lenovo United States admits that it maintains its principal place of business in North Carolina and this District. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 23, because they are vague and ambiguous, and therefore denies them.

24. The allegations in Paragraph 24 state conclusions of law to which no response is required. To the extent that a response may be required, Lenovo United States denies the allegations in Paragraph 24.

NOKIA'S COMPLIANCE WITH THE ITU COMMON PATENT POLICY AND
NOKIA'S RELEVANT DECLARATIONS

A. The International Telecommunications Union ("ITU") and H.264 Standardization Process

25. Lenovo United States admits that there are standards-setting organizations that promulgate industry standards concerning communication protocols that can be adopted by different manufacturers for their devices. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 25, and therefore denies them.

26. Lenovo United States admits that the ITU and the International Standards Organization are standards-setting organizations. Lenovo United States further admits that the ITU has published “Recommendation ITU-T H.264.” Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 26, and therefore denies them.

27. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 27, and therefore denies them.

28. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 28, and therefore denies them.

29. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 29, because they are vague and ambiguous, and therefore denies them.

30. Lenovo United States admits that the ITU has a “Common Patent Policy for ITU-T/ITU-R/ISO/IEC” that states that “a patent embodied fully or partly in a Recommendation | Deliverable must be accessible to everybody without undue constraints.” Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 30, because they are vague and ambiguous, and therefore denies them.

31. Lenovo United States admits that the ITU has published “Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC.” Lenovo United States further states that “Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC” speak for themselves and denies the allegations in Paragraph 31 to the extent inconsistent therewith. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 31, and therefore denies them.

32. Lenovo United States admits that the ITU has published “Recommendation ITU-T H.264.” Lenovo United States states that “Recommendation ITU-T H.264” speaks for itself and denies the allegations in Paragraph 32 to the extent inconsistent therewith.

B. Nokia’s Compliance with the ITU Common Patent Policy and Nokia’s Relevant Declarations

33. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 33, and therefore denies them.

34. Lenovo United States denies that Nokia has negotiated in good faith and states that Nokia has not provided the information necessary to support its claims that its offered terms of a license comply with its RAND obligations. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 34, and therefore denies them.

35. Lenovo United States admits that Nokia sent a letter to Lenovo Group, Ltd., dated March 18, 2019, which included attachments that included a patent list, claim charts, and a list of Lenovo products. Lenovo United States further admits that Nokia offered to license certain of its patents. Lenovo United States denies that Nokia’s patents are essential for compliance with the H.264 Standard or that any Lenovo product infringes Nokia’s patent claims. Lenovo United

States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 35, and therefore denies them.

36. Lenovo United States admits that Nokia sent correspondence to Lenovo Group, Ltd., including a letter dated May 22, 2019 requesting a response by May 29, 2019, that Nokia received a prompt response to its May 22, 2019 letter, that a meeting with Nokia representatives was held on June 6, 2019 in Chicago, and that Robert Gray and Susanna Martikainen attended the meeting from Nokia. Lenovo United States denies that the Patents-in-Suit are essential for compliance with the H.264 Standard or that any Lenovo product infringes Nokia's patent claims. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 36, and therefore denies them.

37. Lenovo United States admits that the proposed June 25, 2019 discussions were postponed, and that Nokia's offer was unreasonable and unsupportable. Lenovo United States denies that Nokia's patents are essential for compliance with the H.264 Standard or that any Lenovo product infringes Nokia's patent claims. Lenovo United States denies the remaining allegations in Paragraph 37.

38. Lenovo United States admits that a meeting with Nokia representatives took place on July 24, 2019, that Nokia offered to license certain of its patents, and that Nokia's licensing offer was not accepted or rejected. Lenovo United States denies that Nokia's patents are essential for compliance with the H.264 Standard or that any Lenovo product infringes Nokia's patent claims. Lenovo United States denies the remaining allegations in Paragraph 38.

39. Lenovo United States admits that a telephone conference with Nokia representatives was held on July 30, 2019. Lenovo United States denies that Nokia's patents are

essential for compliance with the H.264 Standard or that any Lenovo product infringes Nokia's patent claims. Lenovo United States denies the remaining allegations in Paragraph 39.

40. Lenovo United States admits that on July 31, 2019, Nokia sent an "updated claim chart" and a patent list. Lenovo United States denies that Nokia's patents are essential for compliance with the H.264 Standard or that any Lenovo product infringes Nokia's patent claims. Lenovo United States denies the remaining allegations in Paragraph 40.

41. Lenovo United States admits that on August 27, 2019, Nokia sent a document titled, "Nokia & Lenovo, H264/AVC Anonymized License List, August 27, 2019." Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the substance of the documents, and therefore denies them. Lenovo United States denies the remaining allegations in Paragraph 41.

42. Lenovo United States denies the allegations in Paragraph 42.

43. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 43, and therefore denies them.

44. Lenovo United States denies the allegations in Paragraph 44.

45. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations concerning Nokia's conduct in Paragraph 45, and therefore denies them. Lenovo United States denies the remaining allegations in Paragraph 45.

THE NOKIA PATENTS

46. Lenovo United States admits that the '808 patent is entitled "Method for Coding Motion in a Video Sequence," issued on May 12, 2009, names Jani Lainema as the inventor, and that a copy of the patent is attached as Exhibit 1 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 46, and therefore denies them.

47. Lenovo United States admits that the '469 patent is entitled "Method for Sub-Pixel Value Interpolation," issued on September 27, 2005, names Marta Karczewicz and Antti Olli Hallapuro as inventors, and that a copy of the patent is attached as Exhibit 2 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 47, and therefore denies them.

48. Lenovo United States admits that the '599 patent is entitled "Method for Sub-Pixel Value Interpolation," issued on October 9, 2007, names Marta Karczewicz and Antti Olli Hallapuro as inventors, and that a copy of the patent is attached as Exhibit 3 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 48, and therefore denies them.

49. Lenovo United States admits that the '273 patent is entitled "Method for Sub-Pixel Value Interpolation," issued on October 11, 2011, names Marta Karczewicz and Antti Hallapuro as inventors, and that a copy of the patent is attached as Exhibit 4 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 49, and therefore denies them.

50. Lenovo United States admits that the '764 patent is entitled "Video Coding," issued on March 27, 2012, names Miska Hannuksela as the inventor, and that a copy of the patent is attached as Exhibit 5 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 50, and therefore denies them.

51. Lenovo United States admits that the '005 patent is entitled "Video Coding," issued on November 22, 2005, names Miska Hannuksela as the inventor, and that a copy of the patent is attached as Exhibit 6 to the First Amended Complaint. Lenovo United States lacks

knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 51, and therefore denies them.

52. Lenovo United States admits that the '701 patent is entitled "Method and System for Context-Based Adaptive Binary Arithmetic Coding," issued on February 15, 2005, names Marta Karczewicz and Ragip Kurceren as inventors, and that a copy of the patent is attached as Exhibit 7 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 52, and therefore denies them.

53. Lenovo United States admits that the '891 patent is entitled "Method and Associated Device for Filtering Digital Video Images," issued on October 24, 2017, names Ossi Kalevo, Emre Aksu, and Marta Karczewicz as inventors, and that a copy of the patent is attached as Exhibit 8 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 53, and therefore denies them.

54. Lenovo United States admits that the '818 patent is entitled "Method for Coding Sequences of Pictures," issued on May 25, 2010, names Miska Hannuksela and Ye-Kui Wang as inventors, and that a copy of the patent is attached as Exhibit 9 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 54, and therefore denies them.

55. Lenovo United States admits that the '125 patent is entitled "Method and Device for Indicating Quantizer Parameters in a Video Coding System," issued on August 28, 2007, names Jani Lainema as the inventor, and that a copy of the patent is attached as Exhibit 10 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to

form a belief as to the truth of the remaining allegations in Paragraph 55, and therefore denies them.

56. Lenovo United States admits that the '706 patent is entitled "Method, functional arrangement and software means for searching and processing information with user interface of a terminal in which an address field and virtual function keys are modified to correspond to an invoked service through data input to a browser address field, and cellular network terminal employing the method," issued on November 12, 2013, names Mika Mustonen and Markku Rytivaara as inventors, and that a copy of the patent is attached as Exhibit 11 to the First Amended Complaint. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 56, and therefore denies them.

57. Lenovo admits that Nokia refers to the '808, '469, '599, '273, '764, '005, '701, '891, '818, '125, and '706 patents collectively as the "Patents-in-Suit" in its First Amended Complaint.

58. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 58, and therefore denies them.

59. Lenovo United States denies the allegations in Paragraph 59.

60. Lenovo United States denies the allegations in Paragraph 60.

61. Lenovo United States denies the allegations in Paragraph 61.

62. Lenovo United States denies the allegations in Paragraph 62.

63. Lenovo United States denies that it makes, uses, imports into, markets, offers for sale, or sells any product that infringes the Patents-in-Suit. The remaining allegations in Paragraph 63 state conclusions of law to which no response is required. To the extent a response may be required, Lenovo denies the allegations.

GENERAL ALLEGATIONS

- 64. Lenovo United States denies the allegations in Paragraph 64.
- 65. Lenovo United States denies the allegations in Paragraph 65.
- 66. Lenovo United States denies the allegations in Paragraph 66.
- 67. Lenovo United States denies the allegations in Paragraph 67.

LENOVO'S ACCUSED PRODUCTS

A. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '808 Patent.

68. Lenovo United States admits that Lenovo Yoga 730 15" Platinum laptop (Part No. 81CU000TUS) may be used with the NVIDIA GeForce GTX 1050 GPU. Lenovo United States denies that any Lenovo product infringes any claim of the '808 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 68, and therefore denies them.

69. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 69, and therefore denies them.

- 70. Lenovo United States denies the allegations in Paragraph 70.
- 71. Lenovo United States denies the allegations in Paragraph 71.
- 72. Lenovo United States denies the allegations in Paragraph 72.
- 73. Lenovo United States denies the allegations in Paragraph 73.
- 74. Lenovo United States denies the allegations in Paragraph 74.

75. Lenovo United States admits that the www.lenovo.com website publishes customer reviews of various Lenovo products. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 75, and therefore denies them.

B. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '469 Patent.

76. Lenovo United States admits that Lenovo Yoga 730 15" Platinum laptop (Part No. 81CU000TUS) may be used with the NVIDIA GeForce GTX 1050 GPU. Lenovo United States denies that any Lenovo product infringes any claim of the '469 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 76, and therefore denies them.

77. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 77, and therefore denies them.

78. Lenovo United States denies the allegations in Paragraph 78.

79. Lenovo United States denies the allegations in Paragraph 79.

80. Lenovo United States denies the allegations in Paragraph 80.

81. Lenovo United States denies the allegations in Paragraph 81.

82. Lenovo United States denies the allegations in Paragraph 82.

83. Lenovo United States denies the allegations in Paragraph 83.

84. Lenovo United States denies the allegations in Paragraph 84.

C. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '599 Patent.

85. Lenovo United States admits that Lenovo Yoga 730 15" Platinum laptop (Part No. 81CU000TUS) may be used with the NVIDIA GeForce GTX 1050 GPU. Lenovo United States denies that any Lenovo product infringes any claim of the '599 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 85, and therefore denies them.

86. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 86, and therefore denies them.

87. Lenovo United States denies the allegations in Paragraph 87.

88. Lenovo United States denies the allegations in Paragraph 88.

89. Lenovo United States denies the allegations in Paragraph 89.

90. Lenovo United States denies the allegations in Paragraph 90.

91. Lenovo United States denies the allegations in Paragraph 91.

92. Lenovo United States denies the allegations in Paragraph 92.

D. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '273 Patent.

93. Lenovo United States admits that Lenovo Yoga 730 15" Platinum laptop (Part No. 81CU000TUS) may be used with the NVIDIA GeForce GTX 1050 GPU. Lenovo United States denies that any Lenovo product infringes any claim of the '273 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 93, and therefore denies them.

94. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 94, and therefore denies them.

95. Lenovo United States denies the allegations in Paragraph 95.

96. Lenovo United States denies the allegations in Paragraph 96.

97. Lenovo United States denies the allegations in Paragraph 97.

98. Lenovo United States denies the allegations in Paragraph 98.

99. Lenovo United States denies the allegations in Paragraph 99.

100. Lenovo United States denies the allegations in Paragraph 100.

E. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '764 Patent.

101. Lenovo United States denies that any Lenovo product infringes any claim of the '764 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 101, and therefore denies them.

102. Lenovo United States denies that any Lenovo product infringes any claim of the '764 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 102, and therefore denies them.

103. Lenovo United States denies the allegations in Paragraph 103.

104. Lenovo United States denies the allegations in Paragraph 104.

105. Lenovo United States denies the allegations in Paragraph 105.

106. Lenovo United States denies that any Lenovo product infringes any claim of the '764 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 106, and therefore denies them.

107. Lenovo United States denies the allegations in Paragraph 107.

108. Lenovo United States denies the allegations in Paragraph 108.

F. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '005 Patent.

109. Lenovo United States denies that any Lenovo product infringes any claim of the '005 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 109, and therefore denies them.

110. Lenovo United States denies that any Lenovo product infringes any claim of the '005 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 110, and therefore denies them.

111. Lenovo United States denies the allegations in Paragraph 111.

112. Lenovo United States denies the allegations in Paragraph 112.

113. Lenovo United States denies the allegations in Paragraph 113.

114. Lenovo United States denies that any Lenovo product infringes any claim of the '005 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 114, and therefore denies them.

115. Lenovo United States denies the allegations in Paragraph 115.

116. Lenovo United States denies the allegations in Paragraph 116.

G. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '701 Patent.

117. Lenovo United States denies that any Lenovo product infringes any claim of the '701 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 117, and therefore denies them.

118. Lenovo United States denies the allegations in Paragraph 118.

119. Lenovo United States denies that any Lenovo product infringes any claim of the '701 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 119, and therefore denies them.

120. Lenovo United States denies the allegations in Paragraph 120.

121. Lenovo United States denies that any Lenovo product infringes any claim of the '701 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 121, and therefore denies them.

122. Lenovo United States denies the allegations in Paragraph 122.

123. Lenovo United States denies that any Lenovo product infringes any claim of the '701 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 123, and therefore denies them.

124. Lenovo United States denies the allegations in Paragraph 124.

125. Lenovo United States denies that any Lenovo product infringes any claim of the '701 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 125, and therefore denies them.

126. Lenovo United States denies the allegations in Paragraph 126.

127. Lenovo United States denies that any Lenovo product infringes any claim of the '701 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 127, and therefore denies them.

128. Lenovo United States denies the allegations in Paragraph 128.

129. Lenovo United States denies the allegations in Paragraph 129.

H. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '891 Patent.

130. Lenovo United States admits that Lenovo Yoga 730 15" Platinum laptop (Part No. 81CU000TUS) may be used with the NVIDIA GeForce GTX 1050 GPU. Lenovo United States denies that it infringes any claim of the '891 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 130, and therefore denies them.

131. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 131, and therefore denies them.

132. Lenovo United States denies the allegations in Paragraph 132.

133. Lenovo United States denies the allegations in Paragraph 133.

134. Lenovo United States denies the allegations in Paragraph 134.

135. Lenovo United States denies the allegations in Paragraph 135.

136. Lenovo United States denies the allegations in Paragraph 136.

137. Lenovo United States denies the allegations in Paragraph 137.

138. Lenovo United States denies the allegations in Paragraph 138.

I. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '818 Patent.

139. Lenovo United States admits that Lenovo Yoga 730 15" Platinum laptop (Part No. 81CU000TUS) may be used with the NVIDIA GeForce GTX 1050 GPU. Lenovo United States denies that it infringes any claim of the '818 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 139, and therefore denies them.

140. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 140, and therefore denies them.

141. Lenovo United States denies the allegations in Paragraph 141.

142. Lenovo United States denies the allegations in Paragraph 142.

143. Lenovo United States denies the allegations in Paragraph 143.

144. Lenovo United States denies the allegations in Paragraph 144.

145. Lenovo United States denies the allegations in Paragraph 145.

146. Lenovo United States denies the allegations in Paragraph 146.

147. Lenovo United States denies the allegations in Paragraph 147.

J. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '125 Patent.

148. Lenovo United States admits that Lenovo Yoga 730 15" Platinum laptop (Part No. 81CU000TUS) may be used with the NVIDIA GeForce GTX 1050 GPU. Lenovo United States denies that it infringes any claim of the '125 patent. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 148, and therefore denies them.

149. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 149, and therefore denies them.

150. Lenovo United States denies the allegations in Paragraph 150.

151. Lenovo United States denies the allegations in Paragraph 151.

152. Lenovo United States denies the allegations in Paragraph 152.

153. Lenovo United States denies the allegations in Paragraph 153.

154. Lenovo United States denies the allegations in Paragraph 154.

155. Lenovo United States denies the allegations in Paragraph 155.

156. Lenovo United States denies the allegations in Paragraph 156.

157. Lenovo United States denies the allegations in Paragraph 157.

158. Lenovo United States denies the allegations in Paragraph 158.

K. Lenovo Makes, Imports, Uses, Sells, and/or Offers for Sale Products and Services that Infringe the '706 Patent.

159. Lenovo United States admits that the IdeaPad Flex 3 CB 11IGL05 (model number 82BB0007US) and the Lenovo Yoga Smart Tab (model number ZA3V0005US) may include Google Assistant functionality. Lenovo United States denies that any Lenovo product infringes any claim of the '706 patent.

160. Lenovo United States denies the allegations in Paragraph 160.

161. Lenovo United States denies the allegations in Paragraph 161.

162. Lenovo United States denies the allegations in Paragraph 162.

163. Lenovo United States denies the allegations in Paragraph 163.

164. Lenovo United States denies the allegations in Paragraph 164.

165. Lenovo United States denies the allegations in Paragraph 165.

166. Lenovo United States denies the allegations in Paragraph 166.

167. Lenovo United States denies the allegations in Paragraph 167.

168. Lenovo United States denies the allegations in Paragraph 168.

169. Lenovo United States denies the allegations in Paragraph 169.

170. Lenovo United States denies the allegations in Paragraph 170.

COUNT I: PATENT INFRINGEMENT OF THE '808 PATENT

171. Lenovo United States incorporates by reference its response to Paragraphs 1 through 170 as if fully set forth herein.

172. Lenovo United States denies the allegations in Paragraph 172.

173. Lenovo United States denies the allegations in Paragraph 173.

174. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '808 patent number. Lenovo United States denies the remaining allegations in Paragraph 174.

175. Lenovo United States denies the allegations in Paragraph 175.

176. Lenovo United States denies the allegations in Paragraph 176.

177. Lenovo United States denies the allegations in Paragraph 177.

COUNT II: PATENT INFRINGEMENT OF THE '469 PATENT

178. Lenovo United States incorporates by reference its response to Paragraphs 1 through 177 as if fully set forth herein.

179. Lenovo United States denies the allegations in Paragraph 179.

180. Lenovo United States denies the allegations in Paragraph 180.

181. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '469 patent number. Lenovo United States denies the remaining allegations in Paragraph 181.

182. Lenovo United States denies the allegations in Paragraph 182.

183. Lenovo United States denies the allegations in Paragraph 183.

184. Lenovo United States denies the allegations in Paragraph 184.

COUNT III: PATENT INFRINGEMENT OF THE '599 PATENT

185. Lenovo United States incorporates by reference its response to Paragraphs 1 through 184 as if fully set forth herein.

186. Lenovo United States denies the allegations in Paragraph 186.

187. Lenovo United States denies the allegations in Paragraph 187.

188. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '599 patent number. Lenovo United States denies the remaining allegations in Paragraph 188.

189. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '599 patent number. Lenovo United States denies the remaining allegations in Paragraph 189.

190. Lenovo United States denies the allegations in Paragraph 190.

191. Lenovo United States denies the allegations in Paragraph 191.

COUNT IV: PATENT INFRINGEMENT OF THE '273 PATENT

192. Lenovo United States incorporates by reference its response to Paragraphs 1 through 191 as if fully set forth herein.

193. Lenovo United States denies the allegations in Paragraph 193.

194. Lenovo United States denies the allegations in Paragraph 194.

195. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '273 patent number. Lenovo United States denies the remaining allegations in Paragraph 195.

196. Lenovo United States denies the allegations in Paragraph 196.

197. Lenovo United States denies the allegations in Paragraph 197.

198. Lenovo United States denies the allegations in Paragraph 198.

COUNT V: PATENT INFRINGEMENT OF THE '764 PATENT

199. Lenovo United States incorporates by reference its response to Paragraphs 1 through 198 as if fully set forth herein.

200. Lenovo United States denies the allegations in Paragraph 200.

201. Lenovo United States denies the allegations in Paragraph 201.

202. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '764 patent number. Lenovo United States denies the remaining allegations in Paragraph 202.

203. Lenovo United States denies the allegations in Paragraph 203.

204. Lenovo United States denies the allegations in Paragraph 204.

205. Lenovo United States denies the allegations in Paragraph 205.

COUNT VI: PATENT INFRINGEMENT OF THE '005 PATENT

206. Lenovo United States incorporates by reference its response to Paragraphs 1 through 205 as if fully set forth herein.

207. Lenovo United States denies the allegations in Paragraph 207.

208. Lenovo United States denies the allegations in Paragraph 208.

209. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '005 patent number. Lenovo United States denies the remaining allegations in Paragraph 209.

210. Lenovo United States denies the allegations in Paragraph 210.

211. Lenovo United States denies the allegations in Paragraph 211.

212. Lenovo United States denies the allegations in Paragraph 212.

COUNT VII: PATENT INFRINGEMENT OF THE '701 PATENT

213. Lenovo United States incorporates by reference its response to Paragraphs 1 through 212 as if fully set forth herein.

214. Lenovo United States denies the allegations in Paragraph 214.

215. Lenovo United States denies the allegations in Paragraph 215.

216. Lenovo United States denies the allegations in Paragraph 216.

217. Lenovo United States denies the allegations in Paragraph 217.

218. Lenovo United States denies the allegations in Paragraph 218.

COUNT VIII: PATENT INFRINGEMENT OF THE '891 PATENT

219. Lenovo United States incorporates by reference its response to Paragraphs 1 through 218 as if fully set forth herein.

220. Lenovo United States denies the allegations in Paragraph 220.

221. Lenovo United States denies the allegations in Paragraph 221.

222. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '891 patent number. Lenovo United States denies the remaining allegations in Paragraph 222.

223. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '891 patent number. Lenovo United States denies the remaining allegations in Paragraph 223.

224. Lenovo United States denies the allegations in Paragraph 224.

225. Lenovo United States denies the allegations in Paragraph 225.

COUNT IX: PATENT INFRINGEMENT OF THE '818 PATENT

226. Lenovo United States incorporates by reference its response to Paragraphs 1 through 225 as if fully set forth herein.

227. Lenovo United States denies the allegations in Paragraph 227.

228. Lenovo United States denies the allegations in Paragraph 228.

229. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '818 patent number. Lenovo United States denies the remaining allegations in Paragraph 229.

230. Lenovo United States denies the allegations in Paragraph 230.

231. Lenovo United States denies the allegations in Paragraph 231.

232. Lenovo United States denies the allegations in Paragraph 232.

COUNT X: PATENT INFRINGEMENT OF THE '125 PATENT

233. Lenovo United States incorporates by reference its response to Paragraphs 1 through 232 as if fully set forth herein.

234. Lenovo United States denies the allegations in Paragraph 234.

235. Lenovo United States denies the allegations in Paragraph 235.

236. Lenovo United States admits that an attachment to Nokia's March 18, 2019 letter states the '125 patent number. Lenovo United States denies the remaining allegations in Paragraph 236.

237. Lenovo United States denies the allegations in Paragraph 237.

238. Lenovo United States denies the allegations in Paragraph 238.

239. Lenovo United States denies the allegations in Paragraph 239.

COUNT XI: PATENT INFRINGEMENT OF THE '706 PATENT

240. Lenovo United States incorporates by reference its response to Paragraphs 1 through 239 as if fully set forth herein.

241. Lenovo United States denies the allegations in Paragraph 241.

242. Lenovo United States denies the allegations in Paragraph 242.

243. Lenovo United States admits that, on June 30, 2020, counsel for Nokia informed counsel for Lenovo United States that Nokia intended to request leave to file an amended complaint in this action adding the '706, and provided a copy of the '706 patent to counsel for Lenovo United States. Lenovo United States denies the remaining allegations in Paragraph 243.

244. Lenovo United States denies the allegations in Paragraph 244.

245. Lenovo United States denies the allegations in Paragraph 245.

246. Lenovo United States denies the allegations in Paragraph 246.

**COUNT XII: DECLARATORY JUDGMENT THAT NOKIA HAS NEGOTIATED IN
GOOD FAITH TOWARDS A LICENSE WITH LENOVO AND COMPLIED WITH THE
ITU COMMON PATENT POLICY AND NOKIA'S RELEVANT LICENSING
DECLARATIONS**

247. Lenovo United States incorporates by reference its response to Paragraphs 1 through 246 as if fully set forth herein.

248. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 248, and therefore denies them.

249. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 249, and therefore denies them.

250. Lenovo United States denies the allegations in Paragraph 250.

251. Lenovo United States states that the ITU Common Patent Policy speaks for itself and denies the allegations in Paragraph 251 to the extent inconsistent therewith. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 251, and therefore denies them.

252. Lenovo United States denies that the Patents-in-Suit are essential for compliance with the H.264 Standard. Lenovo United States denies that Nokia has negotiated in good faith and states that Nokia has not provided the information necessary to support its claims that its

offered terms of a license comply with its RAND obligations. Lenovo United States admits that Nokia sent a list of patents and claim charts, but Lenovo United States denies that those patents have essential claims to the H.264 Standard or that any Lenovo product infringes Nokia's patent claims. Lenovo United States lacks knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 252, and therefore denies them.

253. The allegations in Paragraph 253 state conclusions of law to which no response is required. To the extent a response may be required, Lenovo United States denies the allegations of Paragraph 253.

254. Lenovo United States admits that Nokia seeks the relief requested but denies that Nokia is entitled to any relief and otherwise denies the allegations of Paragraph 254.

255. Lenovo United States denies that it has failed to negotiate in good faith with Nokia. Lenovo United States admits that Nokia seeks the relief requested but denies that Nokia is entitled to any relief and otherwise denies the allegations of Paragraph 255.

DAMAGES

256. Lenovo United States denies the allegations of Paragraph 256.

DEMAND FOR JURY TRIAL

257. Lenovo United States admits that Nokia has requested a jury trial. No response is required for Nokia's demand for a jury trial. To the extent any response is required, Lenovo United States denies that Nokia has any valid cause of action, and specifically denies all of Nokia's allegations of infringement. Lenovo United States further denies that Nokia is entitled to any of the requested relief.

PRAYER FOR RELIEF

The remainder of the First Amended Complaint recites a prayer for relief for which no response is required. To the extent any response is required, Lenovo United States denies that

Nokia has any valid cause of action, and specifically denies all of Nokia's allegations of infringement. Lenovo United States further denies that Nokia is entitled to any of the requested relief.

LENOVO UNITED STATES' DEFENSES TO NOKIA'S FIRST AMENDED COMPLAINT

Without any admission as to the burden of proof, burden of persuasion, or truth of any allegation in the First Amended Complaint, Lenovo United States alleges and asserts the following defenses in response to the allegations above, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law, regardless of how such defenses are denominated herein. Lenovo United States relies upon the following defenses:

FIRST DEFENSE

(Failure to State a Claim)

The First Amended Complaint fails to state a claim upon which relief can be granted because Lenovo United States has not performed any act and is not proposing to perform any act in violation of any rights validly belonging to Nokia.

SECOND DEFENSE

(Noninfringement)

Nokia is not entitled to any relief against Lenovo United States because Lenovo United States does not make, use, sell, offer for sale, or import into the United States, and has not made, used, sold, offered for sale or imported into the United States, any products or methods that infringe any valid and enforceable claim of the Patents-in-Suit, either directly or indirectly, by inducement, or contributorily, either literally or under the doctrine of equivalents, or otherwise, and has not induced others to infringe, or otherwise indirectly infringed, any valid and enforceable claim of the Patents-in-Suit.

THIRD DEFENSE

(Invalidity)

The claims of the Patents-in-Suit are invalid for failure to comply with the statutory provisions of Title 35 of the United States Code, including without limitation, one or more of §§ 101, 102, 103, 112, and 116.

FOURTH DEFENSE

(Unenforceability)

The Patents-in-Suit are unenforceable against Lenovo United States on one or more of the following grounds: estoppel, waiver, unclean hands, patent exhaustion, license/covenants not to assert, implied license/covenants not to assert, violation of the North Carolina Unfair Trade Practices Act, breach of contract, and/or other contractual or equitable doctrines.

For example, and without limitation, Nokia failed to timely disclose one or more of the Patents-in-Suit in accordance with the requirements of International Telecommunications Union (ITU). At all times relevant to these allegations, Nokia was a member of the ITU-T and actively participated in the ITU-T's and JVT's development of the H.264 Standard. Because of this membership and participation in the H.264 standard-setting process, Nokia was and is bound by the ITU's Patent Policy and Guidelines for Implementation (now known as the Common Patent Policy for the ITU-T/ITU-R/ISO/IEC). As the assignee of Nokia Corporation's H.264 patents, Nokia Technologies Oy is bound by the commitments Nokia Corporation made to the ITU.

Despite Nokia's participation in standard setting related to the H.264 standard, and despite being bound by the ITU's Patent Policy, Nokia failed to timely disclose to the ITU the patents asserted in this case, even while Nokia submitted proposals advocating for inclusion in the H.264 Standard technology that Nokia now claims is covered by those patents. For instance,

Nokia did not submit a Patent Statement and Licensing Declaration to the ITU identifying any of the asserted '005, '764, '469, '599, '273, '701, '125, '808, '818, and '891 patents, if at all, until well after the standard was adopted, and well after Nokia knew it possessed the intellectual property rights that Nokia now claims cover technologies incorporated in the H.264 Standard.

Nokia's egregious misconduct in failing to timely disclose its alleged patent rights, along with the unjust benefits that Nokia received in connection with its late-disclosed alleged patent rights, constitutes at least a waiver of its rights to enforce any claimed-essential patents against any entity practicing the standard and renders the patents unenforceable. Alternatively, this conduct estops Nokia from asserting the Patents-in-Suit and/or bars this suit through the doctrine of unclean hands.

FIFTH DEFENSE

(Bar to Damages)

Nokia's claims for damages are barred, in whole or in part, under 35 U.S.C. §§ 286 and 287.

SIXTH DEFENSE

(No Equitable Relief)

On information and belief, Nokia is not entitled to equitable relief with respect to the Patents-in-Suit under any theory because Nokia has not and will not suffer irreparable harm; Nokia is not without adequate remedy at law; the balance of the hardships do not favor entry of an injunction; and/or public policy concerns weigh against any equitable relief. Among other things, Nokia's commitment to license the asserted patents on reasonable and nondiscriminatory (RAND) terms and the over 50 licenses to the asserted patents that Nokia identifies in its Complaint show that Nokia is willing to accept patent royalties and that injunctive relief is not

warranted. Additionally, Nokia is barred by the equitable defenses of estoppel, waiver, or unclean hands from seeking equitable remedies based on its failure to timely disclose its alleged patent rights in accordance with its obligations under the ITU's Patent Policy.

RESERVATION OF DEFENSES

Lenovo United States reserves any and all additional defenses available under Section 35 of the United States Code, the rules, regulations, or laws related thereto, the Federal Rules of Civil Procedure, the Rules of this Court, and/or otherwise in law or equity, now existing, or later arising, as may be discovered.

LENOVO UNITED STATES' COUNTERCLAIMS

Counterclaim Plaintiff Lenovo (United States) Inc. (hereinafter "Lenovo United States"), by and through its attorneys, pursuant to Rule 13 of the Federal Rules of Civil Procedure, on personal knowledge as to its own acts, and on information and belief as to all others based on its own and its attorneys' investigation, alleges as follows:

NATURE OF ACTION

1. Nokia alleges that Lenovo United States has infringed ten patents that Nokia alleges are essential to the H.264 video standard: U.S. Patent Nos. 7,532,808 ("the '808 patent"), 6,950,469 ("the '469 patent"), 7,280,599 ("the '599 patent"), 8,036,273 ("the '273 patent"), 8,144,764 ("the '764 patent"), 6,968,005 ("the '005 patent"), 6,856,701 ("the '701 patent"), 9,800,891 ("the '891 patent"), 7,724,818 ("the '818 patent"), and 7,263,125 ("the '125 patent"), (collectively, the "Patents-in-Suit."). Lenovo United States asserts these counterclaims to address and remedy Nokia's continuing pattern of misconduct with respect to these patents, including in connection with Nokia's breach of its obligations to timely disclose its alleged rights

in these patents during the industry standardization process. Nokia's unjustified pattern of late disclosure in connection with these patents was egregious, resulted in unjust benefits to Nokia, and has harmed market participants including Lenovo United States.

2. Through these counterclaims, Lenovo United States seeks to remedy Nokia's breaches of its disclosure obligations and violations of the North Carolina Unfair Trade Practices Act ("UTPA"), N.C. Gen. Stat. § 75-1.1.

PARTIES

3. Counterclaim Plaintiff Lenovo (United States) Inc. ("Lenovo United States") is a company organized under the laws of Delaware, with its principal place of business at 8001 Development Drive, Morrisville, North Carolina 27560.

4. On information and belief, Counterclaim Defendant Nokia Technologies Oy (hereinafter "Nokia"), is a Finnish corporation that is headquartered in and does business in Sunnyvale, California.² Nokia alleges that is the owner by assignment of all right, title, and interest in and to the patents that are the subject of the Complaint and these counterclaims.

JURISDICTION AND VENUE

5. Nokia has alleged that Lenovo United States infringes each of the Patents-in-Suit. In response, Lenovo United States asserts counterclaims for breach of contract and unfair business acts and practices under the North Carolina Unfair Trade Practices Act ("UTPA"), North Carolina General Statute section 75-1.1, alleging that Nokia's patents are unenforceable

² See Internet Archive, Nokia Corporation Website, *Nokia Technologies*, https://web.archive.org/web/20170301164948/https://www.nokia.com/en_int/about-us/who-we-are/our-businesses/nokia-technologies (as of March 1, 2017) (listing headquarters as Sunnyvale, California); see also Chris O'Brien, *Nokia Technologies President on the Future of His 'Startup': 'Anything Is Possible,'* Venturebeat, <http://venturebeat.com/2016/08/22/nokia-technologies-president-on-the-future-of-his-startup-anything-is-possible/> (describing Nokia Technologies as "[b]ased in Sunnyvale" and "a startup within Nokia, but based in Silicon Valley").

and seeking entry of judgment declaring the patents to be unenforceable and awarding Lenovo United States damages and attorney fees. These claims raise a case or controversy between the parties, and this Court has supplemental jurisdiction over these state-law counterclaims under 28 U.S.C. § 1367 because they form part of the same case or controversy as the federal claims in this action. This Court also has subject-matter jurisdiction over these counterclaims pursuant to 28 U.S.C. § 1332.

6. Personal jurisdiction and venue in this case are proper in this District pursuant to 28 U.S.C. § 1391 and § 1400, at least because Nokia has subjected itself to the jurisdiction of this Court by filing its Complaint in this District.

INDUSTRY TECHNICAL STANDARDS

7. Industry technical standards developed and issued by industry groups called standard setting organizations (or SSOs) have the potential to encourage innovation, enable interoperability of products, and promote competition among equipment suppliers. Standards assure suppliers and consumers that their products will interoperate with products supplied by others. This assurance enables suppliers to invest in the design, development, and marketing of products that they know consumers will want—precisely because the products are interoperable based on their compliance with a common standard.

8. Standards also reduce costs for suppliers and consumers. For suppliers, the use of a common standard lowers design costs and promotes increased output. Consumers benefit from common standards because such standards promote competition among suppliers, which all must manufacture products that comply with the common standard and therefore compete directly against each other.

9. Absent appropriate rules and adherence thereto, however, standards can lead to anticompetitive abuses. Before a standard is adopted, suppliers of various technologies compete

with other suppliers that offer similar functionality. During standardization, industry participants in the SSO propose ideas for inclusion in the standard. The SSO collectively considers the proposals and then chooses which proposals to adopt into the standard, either directly or with modifications from other participants. The standard is then adopted (or “frozen”) and published for use by product suppliers.

10. Anticompetitive abuses can arise when participants in the standardization process have patent rights relating to the technology being proposed and adopted for the standard. Before standardization, the royalty a patent owner can demand for its technology is constrained by the availability of alternative technical approaches to perform the functionality claimed in the patent. Post-standardization, however, former alternatives to perform the standardized functions are often no longer viable substitutes for those practicing the standard and thus no longer constrain royalties relating to standardized technology.

11. Once the standard is set (or “frozen”) and a particular functionality is incorporated, users of the standard can become “locked in” to the use of that functionality through their investment in products and services that support the standard. This “lock-in” effect creates a risk that patent holders with patents that are essential to implement the standard—i.e., standard-essential patents or SEPs—will attempt to exploit their patents by demanding excessive royalties or seeking to enjoin the use of their patents. In particular, patent holders of alleged SEPs may seek royalties that do not reflect the actual value of the patents (which may relate to only a small fraction of the functionality prescribed in a given standard). Instead, patent holders may seek inflated royalties for their allegedly essential patents based on the value of the overall standard itself and the user’s investments in supporting the standard. Because the standard has been frozen at this point and the user has spent substantial resources developing products based

on the standard, it is prohibitively expensive and not commercially feasible for the user to start over with a new technology or a new standard. In other words, once a standard is frozen, industry participants can be “locked in” to implementing the functionality defined in the standard, including functionality that may be covered by one or more patents.

12. The danger that a patent holder will gain an arbitrary and unfair advantage in demanding royalties is particularly high when a participant in an SSO standardization project proposes ideas to be included in the standard that are identical or similar to the ideas the participant is separately seeking to patent. Such a situation creates the risk that a participant will intentionally push the SSO to adopt (unknowingly) the participant’s patented technology, even though the SSO might have adopted a different technology or excluded the functionality from the standard if the SSO was fully aware of the participant’s patent claims. In other words, some functionality may be included in a standard that is so trivial that participants would rather forsake it than face the prospect of potentially paying royalties for it in the future.

13. In sum, without safeguards, suppliers making huge investments in products that support a standard can be exploited by holders of allegedly essential patents, who can seek exorbitant royalties based not on the inventive value of their technology but rather on the fact their technology has purportedly been standardized.

14. In response to this risk of exploitative behavior, most SSOs have adopted intellectual property rights (IPR) policies that are intended to minimize the potential for exploitation. Many IPR policies, including the policy relevant here, require participants to timely disclose any alleged standard-essential patent rights that, if adopted, might cover the technology that the SSO is considering for standardization. Such policies allow an SSO and its members to evaluate alternative technical proposals—and the ability to consider the potential

implications of any patents that that might cover the various proposals—before the standard is frozen.

15. SSOs adopt such disclosure policies to promote the widespread use of their standards by suppliers and consumers. Standards that are developed subject to a requirement of full and timely disclosure of potential IPR will be more widely adopted because the standard will not be encumbered by unnecessary patents and because suppliers and customers can know before using the standard what potential patent claims might apply to the use of the standard.

THE H.264 STANDARD

16. Nokia’s unlawful conduct concerns patents it claims are essential to the practice of the H.264 standard, a widely used standard for video compression that was jointly promulgated by the International Telecommunications Union (“ITU”) and the International Organization for Standardization /International Electrotechnical Commission (“ISO/IEC”).

17. The H.264 standard was developed by the Joint Video Team (“JVT”), which is a collaborative group composed of (1) the Motion Picture Experts Group (MPEG), the video subgroup of the ISO/IEC, and (2) the Video Coding Experts Group (“VCEG”), a subgroup of the ITU.³ Early development of the H.264 standard was performed by the ITU’s VCEG, and the JVT was created in 2001 to finalize it. The first version of H.264, also known as MPEG-4 Part 10, or Advanced Video Coding (“AVC”), was adopted in May 2003.

18. As a member of the ITU, Nokia participated in the development of the standard that would become H.264, both before and after the JVT was formed. The JVT operated as a “joint group under the ordinary policies and procedures of both organizations,” and committed to

³ See MPEG, “MPEG-4 Advanced Video Coding,” <http://mpeg.chiariglione.org/standards/mpeg-4/advanced-video-coding>.

working in compliance with the IPR policies, reporting requirements, and procedures of the ITU and the ISO/IEC.⁴

19. H.264 video compression technology was designed for use in a “wide range of applications such as high-resolution video broadcast and storage, mobile video streaming (Internet and broadcast), and professional applications such as cinema content storage and transmission.”⁵ According to the ITU, H.264 “represents an evolution of the existing video coding standards” and “was developed in response to the growing need for higher compression of moving pictures for various applications such as videoconferencing, digital storage media, television broadcasting, Internet streaming, and communication.”⁶

20. H.264 is the most popular method of coding video content. Lenovo United States and its affiliates have invested billions of dollars in products that support the H.264 standard. The vast majority of video content available for display on Lenovo United States products uses H.264 and converting that content to a new standard would be prohibitively expensive and time-consuming. Lenovo United States currently has no economically viable option to use an alternative video coding technique in place of H.264.

NOKIA’S BREACH OF ITS DISCLOSURE OBLIGATIONS

21. During the H.264 standardization process, Nokia failed to disclose that it held patents or patent applications that it now claims are essential to the H.264 standard, even while Nokia was actively participating in the standard-setting process to advocate for technology purportedly covered by its patents to be incorporated in the H.264 standard. This misconduct

⁴ ITU, “Terms of Reference for the Joint Video Team (JVT) Activities,” https://www.itu.int/dms_pub/itu-t/oth/34/01/T34010000010001PDFE.pdf.

⁵ MPEG, “MPEG-4 Advanced Video Coding,” <http://mpeg.chiariglione.org/standards/mpeg-4/advanced-video-coding>.

⁶ ITU-T, “Summary,” <https://www.itu.int/ITU-T/recommendations/rec.aspx?rec=9519&lang=en>.

violated Nokia's obligations to the ITU and was part of a scheme to induce the SSOs developing H.264 to standardize technology that Nokia would later claim is covered by its alleged standard-essential patents.

22. At all times relevant to these allegations Nokia was a member of the ITU-T⁷ and actively participated in the ITU-T's and JVT's development of the H.264 standard. Because of this membership and participation in the H.264 standard-setting process, Nokia was and is bound by the ITU's Patent Policy (now known as the Common Patent Policy for the ITU-T/ITU-R/ISO/IEC). As the assignee of Nokia Corporation's H.264 patents, Nokia Technologies Oy is bound by the commitments Nokia Corporation made to the ITU.

23. The Patent Policy in effect when Nokia began participating in the development of H.264 states that "any ITU-T member organization putting forward a standardization proposal should, from the outset, draw the attention of the [Telecommunication Standardization Bureau (TSB)] to any known patent or to any known pending patent application, either their own or of other organizations."⁸ The Guidelines for Implementation of the Patent Policy state that "[t]he term 'from the outset' as it appears in paragraph 1 of the TSB Patent Policy . . . implies that such information should be disclosed as soon as possible, i.e. as soon as it is becoming clear that an evolving draft Recommendation will, in fact, fully or partly include patented elements."⁹ The Guidelines for Implementation of the Patent Policy also state that "[a]ny ITU Member State or Sector Member organization aware of a patent held by itself or others, which may fully or partly

⁷ The ITU-T is the sector of the ITU that focuses on standardization. The ITU-T "assembles experts from around the world to develop international standards known as ITU-T Recommendations, which act as defining elements of the global infrastructure of information and communication technologies." ITU, <https://www.itu.int/en/join/Pages/default.aspx>.

⁸ ITU, Guidelines for Implementation of the TSB Patent Policy (July 7, 1999), at 7 (Appendix I).

⁹ *Id.* at 3 (Section 2.4).

cover elements of the draft Recommendation(s) proposed for approval, is requested to disclose such information to the TSB, in no case later than the date scheduled for approval of the Recommendation(s).”¹⁰

24. The Guidelines specify that the disclosure requirement extends to patent rights that potentially cover technology incorporated in a standard after the standard has been published. In such cases, “[i]f the patent holder is unwilling to license or waive its rights, the Recommendation will need to be revised or withdrawn and its publication suspended.”¹¹

25. According to the Guidelines’ statement of purpose, “[t]he guidelines encourage the early disclosure and identification of patents that may relate to Recommendations under development. In doing so, greater efficiency in standards development is possible and potential patent rights problems can be avoided.”¹²

26. Despite Nokia’s involvement in developing the H.264 standard and despite being bound by the ITU’s Patent Policy, Nokia repeatedly failed to disclose during development of the H.264 standard that Nokia had rights in the Patents-in-Suit that, which according to Nokia, are essential to practice the H.264 standard. Indeed, Nokia failed to declare to the ITU and ISO/IEC the existence of its alleged rights in the asserted patents, if at all, until well after the H.264 standard was adopted in May 2003. Upon information and belief, Nokia did so to induce the JVT to incorporate technology that is purportedly covered by the asserted patents into the H.264 standard—but without full knowledge of the costs and benefits associated with adopting that allegedly patented technology into the standard. If Nokia had disclosed its allegedly essential patents, as it was required to do, the JVT could have considered whether to adopt alternative

¹⁰ *Id.* at 4 (Section 3.1).

¹¹ *Id.* at 6 (Section 6).

¹² *Id.* at 2 (Section 1).

technologies or declined to include the relevant functionality in the standard. Members of the ITU and third-party beneficiaries of Nokia's obligations under the ITU IPR policy reasonably expected Nokia to disclose its known patents and patent applications at the outset of the standardization process and not after a functionality allegedly covered by a patent or patent application was approved for incorporation into the standard.

27. If, as Nokia asserts in this case, it holds patents essential to H.264, then under the binding rules of ITU Nokia was obligated to disclose those patents from the outset. To be clear, Lenovo United States disputes the actual essentiality of the patents-in-suit, but if Nokia were right on that issue, Nokia was subject to clear and binding disclosure obligations to the ITU.

28. Yet Nokia did not submit a Patent Statement and Licensing Declaration to the ITU identifying the '808, '005, '764, '469, '599, '273, '701, '125, '818, and '891 patents (or the applications for those patents) as allegedly essential to the H.264 standard until well after the standard was adopted, if at all, and well after Nokia knew it possessed IPR that it claims cover technologies incorporated in the H.264 standard, as detailed below. Nokia concealed the existence of its allegedly essential IPR during the standard-setting process even while Nokia personnel (including named inventors of the asserted patents) consistently participated in the relevant JVT working groups and steered those groups to adopt technology that Nokia claims is covered patents it asserts against Lenovo United States in this litigation. Nokia failed to disclose its patents and patent applications even though participants at meetings were frequently reminded throughout the standard-setting process of the IPR policy and were asked to disclose their patents.

29. As detailed below, despite being an active participant in the development of the H.264 standard, Nokia did not properly disclose or declare its patent rights until well after the

standard was adopted, if at all. When Nokia brought the patents to Lenovo United States' attention, Lenovo United States examined the ITU working group history of these patents and discovered Nokia's scheme of untimely disclosure in contravention of ITU rules.

- In its Complaint, Nokia alleges infringement of the '808 patent based on multiple sections of the H.264 standard, and further alleges that each of these sections was included in the issued H.264 standard at least as early as March 2005. Yet, during the standard-setting process, Nokia did not disclose its alleged rights in the '808 patent, which claims priority to a patent application Nokia filed on March 15, 2002. In fact, although Nokia was an active participant in relevant JVT working groups during that entire period, including by making technical proposals for inclusion in the H.264 standard, Nokia did not disclose its alleged rights in the '808 patent to the ITU and ISO/IEC until March 19, 2007, in a declaration signed by Jari Vaario, Director IPR, Nokia Corporation.
- In its Complaint, Nokia alleges infringement of the '005 and '764 patents based on multiple sections of the H.264 standard, and further alleges that each of these sections was included in the issued H.264 standard at least as early as March 2005. Yet, during the standard-setting process, Nokia did not disclose its alleged rights in the '005 and '764 patents, which claim priority to a patent application that Nokia filed on May 15, 2000. In fact, although Nokia was an active participant in relevant JVT working groups during that entire period, including by making technical proposals for inclusion in the H.264 standard, Nokia did not disclose its alleged rights in the '005 patent to the ITU and ISO/IEC until March 19, 2007, in a declaration signed by Jari Vaario, Director IPR, Nokia Corporation. Nokia never disclosed the '764 patent to the ITU and ISO/IEC.
- In its Complaint, Nokia alleges infringement of the '469, '599, and '273 patents based on multiple sections of the H.264 standard, and further alleges that each of these sections was included in the issued H.264 standard at least as early as March 2005. Yet, during the standard-setting process, Nokia did not disclose its alleged rights in the '469, '599, and '273 patents, which claim priority to a patent application that Nokia filed on September 17, 2001. In fact, although Nokia was an active participant in relevant JVT working groups during that entire period, including by making technical proposals for inclusion in the H.264 standard, Nokia did not disclose its alleged rights in the '469 and '599 patents to the ITU and ISO/IEC until June 26, 2007, in a declaration signed by Stephan Wenger, Sr. IPR Manager, Nokia Corporation. Nokia never disclosed the '273 patent to the ITU and ISO/IEC.
- In its Complaint, Nokia alleges infringement of the '701 patent based on multiple sections of the H.264 standard, and further alleges that each of these sections was included in the issued H.264 standard at least as early as March 2005. Yet, during the standard-setting process, Nokia did not disclose its alleged rights in the '701 patent, which claims priority to a patent application Nokia filed on September 14, 2001. In fact, although Nokia was an active participant in relevant JVT working groups during that entire period, including by making technical proposals for inclusion in the H.264

standard, Nokia did not disclose its alleged rights in the '701 patent to the ITU and ISO/IEC until October 11, 2010, in a declaration signed by Kalle Moilanen, IPR Manager, Nokia Corporation.

- In its Complaint, Nokia alleges infringement of the '818 patent based on multiple sections of the H.264 standard, and further alleges that each of these sections was included in the issued H.264 standard at least as early as March 2005. Yet, during the standard-setting process, Nokia did not disclose its alleged rights in the '818 patent, the application for which was filed on April 30, 2003. In fact, although Nokia was an active participant in relevant JVT working groups during that entire period, including by making technical proposals for inclusion in the H.264 standard, Nokia did not disclose its alleged rights in the '818 patent to the ITU and ISO/IEC until October 11, 2010, in a declaration signed by Kalle Moilanen, IPR Manager, Nokia Corporation.
- In its Complaint, Nokia alleges infringement of the '125 patent based on multiple sections of the H.264 standard, and further alleges that each of these sections was included in the issued H.264 standard at least as early as March 2005. Yet, during the standard-setting process, Nokia did not disclose its alleged rights in the '125 patent, which claims priority to a patent application Nokia filed on April 23, 2002. In fact, although Nokia was an active participant in relevant JVT working groups during that entire period, including by making technical proposals for inclusion in the H.264 standard, Nokia did not disclose its alleged rights in the '125 patent to the ITU and ISO/IEC until April 4, 2011, in a declaration signed by Kalle Moilanen, IPR Manager, Nokia Corporation.
- In its Complaint, Nokia alleges infringement of the '891 patent based on multiple sections of the H.264 standard, and further alleges that each of these sections was included in the issued H.264 standard at least as early as March 2005. Yet, during the standard-setting process, Nokia did not disclose its alleged rights in the '891 patent, which claims priority to a patent application Nokia filed on January 20, 2000. In fact, although Nokia was an active participant in relevant JVT working groups during that entire period, including by making technical proposals for inclusion in the H.264 standard, Nokia did not disclose its alleged rights in the '891 patent to the ITU and ISO/IEC until December 21, 2007, in a declaration signed by Stephen Wenger, Sr. IPR Manager, Nokia Corporation.

30. Upon information and belief, Nokia's failure to timely disclose its rights in the Patents-in-Suit was intended to and did cause the H.264 standard developers to incorporate technology that Nokia now claims is covered by its alleged SEPs, without the benefit of having knowledge of those alleged rights. Had Nokia timely disclosed its relevant IPR, the JVT could have decided to standardize an alternative technology to perform the relevant functions or left the

relevant functions out of the standard. Nokia's failure to disclose its patents in a timely fashion therefore distorted and impaired the standardization process.

31. Nokia's disclosure obligations are binding contractual commitments with the ITU and its members and other SSOs participating in the H.264 standard development for the benefit of the SSOs, their members, and any entity that supports the H.264 standard, including Lenovo United States. Members of the SSOs and entities selling products that support the H.264 standard (such as Lenovo United States) reasonably relied on the ITU's rules in supplying products that support the H.264. Lenovo United States has invested massive resources to supply products in reliance on the transparency of the standard-setting process and the compliance of H.264 participants with ITU rules, including ITU's policy requiring timely disclosure of any IPR that might cover the proposed standard.

32. Nokia's breaches of ITU commitments go even further. In particular, Nokia also has violated the contractual commitments it made in the declarations that it did file with the ITU in which it promised to license allegedly essential patents on reasonable and nondiscriminatory (RAND) terms.

33. On June 7, 2001 Nokia submitted to the ITU a General Patent Statement and Licensing Declaration:

In case part(s) or all of any proposals contained contributions submitted by [Nokia Corporation] are included in ITU-T Recommendation(s) and the included part(s) contain items that have been patented or for which patent applications have been filed and whose use would be required to implement the ITU Recommendation(s), [Nokia Corporation] hereby declares, in accordance with the Statement on ITU-T Patent Policy ... that ... [t]he Patent Holder is prepared to grant—on the basis of reciprocity for the relevant ITU-T Recommendation(s)—a license to an unrestricted number of applicants on a worldwide, nondiscriminatory basis and on reasonable terms and conditions.

34. Nokia's eventual individual patent declarations all made RAND commitments such as the following with respect to technology Nokia believed to be essential to the H.264 standard:

The Patent Holder is prepared to grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of [ITU-T H.264 / ISO/IEC 14496-10].

35. Nokia's declarations are binding contractual commitments made to the ITU and its members and other SSOs participating in the H.264 standard development for the benefit of the SSOs, their members, and any entity that supports the H.264 standard, including Lenovo United States. Nokia has breached these contractual commitments by seeking licenses on terms that are not reasonable and nondiscriminatory because Nokia's demand of licensing fees for untimely disclosed patents is unreasonable and/or discriminatory.

FIRST COUNTERCLAIM

(Breach of Contract)

36. Lenovo United States repeats and realleges the allegations in the foregoing Paragraphs of its Counterclaims, above, as if set forth fully herein.

37. As set forth above, by participating in the H.264 standard setting process, Nokia entered into contractual commitments with the ITU and its members along with other SSOs participating in the H.264 standard development for the benefit of the SSOs, their members, and any entity that supports the H.264 standard.

38. Every party supplying products that support the H.264 standard, including Lenovo United States, is an intended third-party beneficiary of Nokia's contractual commitments to timely to disclose any allegedly essential patent rights in accordance with the disclosure requirements of the ITU IPR policy, and to license any declared-essential patents on RAND terms.

39. Nokia breached these contractual commitments at least by failing timely to disclose its allegedly essential patent rights in accordance with the requirements of the ITU IPR policy and by demanding licensing fees and asserting infringement of patents that were not timely disclosed. Nokia also breached its contractual commitments by failing to abide by the untimely patent declarations that Nokia ultimately did file with the ITU. Nokia violated those declarations by offering Lenovo United States to license its declared-essential H.264 patents on terms that are not reasonable and nondiscriminatory (RAND) because Nokia's demand of licensing fees for untimely disclosed patents is unreasonable and/or discriminatory.

40. As a direct, proximate, and foreseeable result of Nokia's egregious and wrongful conduct, as alleged above, Nokia unjustly benefitted, and Lenovo United States suffered harm, both as a customer and as a supplier of downstream products. This harm includes, among other things, (1) being forced to expend resources to defend claims of patent infringement (with such costs exceeding \$75,000); (2) being forced to defend against or negotiate licenses to patents on which Nokia is seeking excessive royalties in contravention of ITU rules because Nokia is not entitled to royalties on untimely disclosed patents; and (3) suffering or being threatened with: increased costs, loss of profits, loss of customers and potential customers, loss of goodwill and product image, uncertainty in business planning, and uncertainty among customers and potential customers.

SECOND COUNTERCLAIM

(Violation of North Carolina Unfair Trade Practices Act)

41. Lenovo United States repeats and realleges the allegations in the foregoing Paragraphs of its Counterclaims, above, as if set forth fully herein.

42. By the acts alleged, Nokia has engaged in unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, within

the meaning of the North Carolina UTPA. N.C. Gen. Stat. § 75-1.1(a) *et seq.* The UTPA prohibits, among other things, practices that offend established public policy or are unethical, oppressive, unscrupulous, or substantially injurious to consumers. The UTPA likewise prohibits deceptive business practices and aggravated breaches of contract.

43. Nokia committed such wrongful actions at least by engaging in a pattern of failing to timely disclose its claimed essential patent rights to the ITU during the development of the H.264 standard. Nokia actively participated in the H.264 standard-setting process: Nokia submitted many proposals for technology to be included in the H.264 standard, even while Nokia was separately seeking to patent concepts related to video compression, the subject of the H.264 standard. Nokia's pattern of late disclosure or non-disclosure extended over multiple years, with Nokia repeatedly failing to disclose alleged essential patent rights until well after the adoption of the H.264 standard.

44. Nokia's pattern of behavior violated the rules of the H.264 standard-setting organizations and unfairly and deceptively prevented those organizations from fully evaluating relevant technologies when developing and adopting the H.264 standard. Nokia engaged in an anticompetitive scheme to propose technologies for incorporation into the H.264 standard, hide that it was seeking or had obtained patents on the technology, and then wait until after adoption of the standard to disclose its alleged H.264 patents so that industry participants in the standard would be "locked in" to the use of that functionality, in contravention of ITU IPR policy. Nokia also furthered this scheme by asserting infringement and demanding licensing fees on patents that were not timely disclosed, in contravention of ITU IPR policy. Nokia sought to extract excessive royalties by including untimely disclosed patents among the patents for which it sought licensing fees, including because Nokia is not entitled to any royalties on untimely

disclosed patents. Nokia's scheme has culminated in litigation such as this action, which is based on the assertion of allegedly essential patents that were not disclosed until well after the adoption of the H.264 standard, and for which Nokia now seeks excessive, supra-RAND royalties because Nokia is not entitled to royalties on untimely disclosed patents.

45. The Federal Trade Commission ("FTC") has recognized that the type of SSO misconduct Nokia has committed violates Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45 ("FTC Act"). Specifically, the FTC has stated that an SSO member's failure to disclose the existence of intellectual property rights relevant to an industry standard and its subsequent assertion of those patents against implementers of the standard constituted unfair methods of competition that restrained competition in violation of Section 5 of the FTC Act. The FTC has also brought an action under Section 5 where, like here, a firm refuses to abide by licensing commitments made in connection with industry standard-setting activities.

46. As a direct, proximate, and foreseeable result of Nokia's unfair, deceptive, and wrongful conduct, as alleged above, Nokia unjustly benefitted, and Lenovo United States suffered harm in North Carolina and elsewhere, both as a customer (i.e., a potential licensee) and as a supplier of downstream products. This harm includes, among other things, (1) being forced to expend resources to defend claims of patent infringement based on the claimed essentiality of the patents-in-suit (with such costs exceeding \$75,000); and (2) suffering or being threatened with: increased costs, loss of profits, loss of customers and potential customers, loss of goodwill and product image, uncertainty in business planning, and uncertainty among customers and potential customers.

47. The harm from Nokia's wrongful conduct also includes harm to the public and/or to competition in the form of lack of adoption of alternative technologies, higher prices and

reduced innovation and quality for U.S. consumers purchasing products that support the applicable standard, undermining the procompetitive aspects of standard setting, and chilling incentives to participate in beneficial standard setting. Unless enjoined, Nokia's conduct will continue to cause such irreparable harm.

DEMAND FOR JURY TRIAL

Lenovo United States demands a trial by jury as to all issues so triable raised by Nokia's Complaint or by Lenovo United States' Answer, Defenses, and Counterclaims.

PRAYER FOR RELIEF

WHEREFORE, Lenovo United States respectfully requests that the Court enter judgment in its favor and against Nokia as follows:

- A. Dismissing Nokia's Complaint in its entirety, with prejudice;
- B. Entering judgment in favor of Lenovo United States and against Nokia;
- C. Adjudging and decreeing that Lenovo United States has not been and is not now infringing, either directly, contributorily, or by inducement, either literally or under the doctrine of equivalents, any claim of the Patents-in-Suit;
- D. Adjudging and decreeing that the claims of the Patents-in-Suit are invalid;
- E. Adjudging and decreeing that Nokia is liable for breach of contract and/or unfair business acts and practices;
- F. Adjudging and decreeing that Nokia's purported essential patents are unenforceable and enjoining their enforcement against at least Lenovo United States and other companies that offer products supporting the

H.264 Standard—including because of implied waiver, breach of contract, and violation of the North Carolina UTPA;

- G. Awarding Lenovo United States the amount of damages it proves at trial;
- H. Awarding Lenovo United States its costs, attorney fees, and expenses incurred in defending this action pursuant to 35 U.S.C. § 285;
- I. Awarding treble damages pursuant to North Carolina General Statute § 75-16;
- J. Awarding Lenovo United States all reasonable attorney fees and costs incurred in pursuing its counterclaims, including pursuant to the North Carolina UTPA;
- K. Awarding taxable costs;
- L. Awarding interests; and
- M. Awarding Lenovo United States other and further relief as this Court deems just and proper.

DATED: August 7, 2020

Respectfully submitted,

/s/ Jacob S. Wharton

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Counsel for Lenovo (United States) Inc.

CERTIFICATE OF SERVICE

I hereby certify that on August 7, 2020, a true and correct copy of the above and foregoing Defendant Lenovo (United States) Inc.'s Answer, Defenses, and Counterclaims to the First Amended Complaint of Nokia Technologies OY was electronically filed with the Clerk of Court using the CM/ECF system, which will send notification to the attorneys of record for all parties.

/s/ Jacob S. Wharton

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